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Trip report--Pago Pago, American Samoa to review sampling program for longline fishery (March 19-28, 1974)

The purpose of this trip was to 1) develop closer coordination between the canneries and other people directly associated with the fisheries operations, personnel of the Office of Marine Resources, and personnel from the Honolulu Laboratory in order to facilitate the collection of catch, effort, and size-sex data from the fishery; 2) discuss means of again collecting fork-length and sex data on albacore; 3) discuss the possibility of collecting data on yellowfin and bigeye tunas; 4) reach an agreement on the roles of Dr. Dick Wass, who is now in charge of the data collection program for the Office of Marine Resources, and personnel at our Laboratory, who process the data.

1. Coordination.

Dr. Stanley N. Swerdloff, Director of Marine Resources, setup meetings with the major participants in the longline fishery operations in American Samoa, which did not include the company representatives. In addition, I met several times with Dr. Swerdloff and every day with Dr. Wass to discuss various aspects of the fishery. I will briefly describe the meetings with the various people.

On Monday morning, 25 March, Dr. Wass and I met with Mr. Enti Liu, the Consul for the Republic of China, and Mr. Peter L. M. Kau, the Pacific Fisheries Attache. Mr. Liu participated in the preliminary discussions but deferred completely to Mr. Kau when we got down to fisheries problems. I could not get over the feeling that Mr. Kau acted like an old friend who was suffering from a psychological knife wound in the back. Aside from international politics, he mentioned that his country had been turned down in requests for data or information on the Samoan albacore fishery. I could not determine whether the request came from his office or from Taiwan. Mr. Kau did not feel that the reports that we are getting are necessarily accurate, since, and this is my personal opinion, he did not trust the accuracy of the daily catch and position data that the Taiwanese vessels must radio into him daily. In any case, I do not believe that Mr. Kau can be counted on for much support in getting the catch-effort log sheets from the Taiwanese longline vessels unless we can start providing him with some information on the fishery. Possibly the monthly summaries that Dr. Wass

and I discussed (to be described later) will be of some help. Mr. Kau indicated that the vessels have not been making good catches lately.

On Tuesday morning, 26 March, Drs. Swerdloff, Wass, and I met with Mr. Koh Dong Jae, the Fisheries Officer for the Republic of Korea. Mr. Koh was very interested in the report on the albacore fishery that I gave him and, in turn, gave Dr. Swerdloff a report by KMIDC on their fishing operations in the Pacific. He has been very cooperative with Dr. Swerdloff, and this can be seen in the high percentage return of catch-effort log sheets from the Korean vessels. The Korean vessels fill in a log sheet that has been copied from ours, but I am not sure who receives these forms. I think we can look forward to the continued cooperation of Dr. Swerdloff's "golfing friend." Mr. Koh indicated that if the catches did not improve that some Korean vessels would probably leave the fleet.

On Wednesday morning, 27 March, Drs. Swerdloff, Wass, and I met with Mr. Ted Morgado, Fleet Manager for Star-Kist Foods, Inc. Mr. Morgado has carried over his scientific fisheries interest from his former job with us into his present position. He requires that the captains of the vessels contracted to Star-Kist turn in the catch-effort logs to him when they land fish. He studies these data logs and has a good understanding of catch trends by season and area. He is concerned about the vitality of the fishery. He was not only willing to help us get whatever data we needed but called for us to initiate more intensive studies on the biology and population dynamics of the fishery. Star-Kist receives shipments of skipjack tuna from various places in the western Pacific; it might be possible to get samples from these fish. Mr. Morgado remarked that the numbers of marlins and other miscellaneous fish coming onto the docks were exceeding the numbers indicated on the log sheets.

At Van Camp Sea Food Co., Dr. Wass and I talked to Mr. Vernon "Bud" Wright, Plant Manager, and Mr. Francis Yuhashi, Fleet Manager. Mr. Yuhashi seems interested only in managing the unloading and handling of fish and the provisioning of the vessels. Mr. Wright seemed very sincere in his interest for scientific research on the fishery. He was glad to receive the report on the assessment of the stock. He said he would help us in any way possible to obtain the catch-effort log book data as well as to collect information on length and sex of albacore. Mr. Wright has invited Drs. Stanley Swerdloff and Dick Wass to the monthly meetings in which various people associated with the fishery (both canneries, fishing company representatives, U.S. Coast Guard, dry dock facility (government operated) etc.) get together and discuss problems. He offered to call for the help of the fishing company representatives in getting the vessel captains to turn in the catch-effort data sheets.

2. Length-sex data for albacore.

Dr. Wass and I discussed with Mr. Wright the problems of obtaining a random sample of albacore when the fish are sorted into two or sometimes three sizes before being thawed and butchered. Stratified random sampling would be more difficult for the sampler to carry out and would be more difficult to design so that it did not interfere with cannery operations. We settled on a plan where 50 fish would be sampled at random from the fish as they were being unloaded. These fish would be placed into a bin that was marked as being sample fish. This bin would be handled the same as the other fish from the vessel, i.e., weighed, placed in freezer storage, and defrosted for processing according to the cannery's schedule. The sampler would have to determine or be notified when the sample bin was placed under the sprayers for defrosting so that he could schedule his time for sampling the fish. These kind of details would have to be worked out by Dr. Wass and Mr. Pulou Niuatoa of Marine Resources. I have, since returning to Honolulu, proposed this plan to Mr. Ted Morgado at Star-Kist.

3. Sampling of yellowfin and bigeye tunas.

As for obtaining samples of yellowfin and bigeye tunas, there seemed to be no great problem since they are unloaded along with the albacore. However, the fishermen seem to sort these species from the albacore until they have enough to make one load for the crane. They would have to be sampled before they are sorted into sizes in the storage bins.

4. Roles of Marine Resources and Honolulu Laboratory.

Basically, the role of the Office of Marine Resources will be to collect the catch-effort log book and length-sex data from the longline fishery, disperse summary reports to the major participants in the fishery, and maintain open communication with the major participants. The role of the Honolulu Laboratory will be to process the data both in terms of long-term assessments of the resource and also in supplying summaries of the state of the fishery on as timely a basis as possible.

It was apparent after talking with the cannery people as well as the fisheries officers for Korea and Taiwan that they need, or certainly want, summaries on the state of the fishery. Stated simply, they want something in return for their cooperation and help in obtaining data, and this something should be of use to them in maintaining an understanding of the trends in catch rates and distribution of the longline fleet.

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important, useful, and Dr. Swerdloff wants them expanded to include all important species. However, because of the time delay in getting 100% of the log sheets before a report can be issued, they are not useful for any short-term studies. The last report that was issued covered data up through August 1972.

In order to provide more up to date information, we settled on two courses of action. First, Ray Sumida will be asked to provide a list of errors and omissions that are commonly made on the catch-effort log sheets. Dr. Wass will use this list to screen the log sheets as they are collected from the vessels. In this way, errors or omissions may be corrected before the vessel leaves on another trip, which is now averaging about 3 months, but can be as long as 6 months or more. Dr. Swerdloff reported that these log sheets are collected and sent to the Honolulu Laboratory about every 10 days. Second, after consulting with Dr. Wass, I proposed that we provide on a monthly basis a computer summary of catch per unit effort (hooks and days fished) by 5° rectangles for all the important species based on the data at hand. Though incomplete, these reports will give an indication of the state of the fishery. Also, they can easily be provided for each nationality in the fleet so that the country and company representatives may be appraised of the state of the fishery as viewed from their vessels. In order to provide these reports, the log sheets will have to be received and key punched on a regular basis.

In addition to the albacore subject, Dr. Swerdloff asked me to check into the uses that are being made of the temperature-salinity data that is being collected on a once a week basis. He also needs a computer update of this data, but after this updating he is not interested in receiving any more. He cannot see any seasonal trends in the data and wonders about the validity or usefulness of the data; there may be a serious freshwater contamination at the sample site during heavy rains. He plans on establishing a sampling station about 5 miles out from Pago Pago harbor at which the Alafaga will take an XBT sample (and salinity probably) whenever the vessel leaves port. I promised to check on the uses of this data and will be contacting Dr. Richard Barkley and Mr. Gunter Seckel. Also, Dr. Swerdloff asked me to help him in obtaining various oceanographic information on the area around American Samoa; I will be seeking Dr. Barkley's help on this subject.

Also, Dr. Swerdloff asked if we could provide him with computer summaries of catches of important species by month and 1° squares in about a 150-200 mile radius of American Samoa. Since this data need not be done on any tight time schedule, I indicated that we could probably provide it. Dr. Swerdloff wants these information to aid him in evaluating the potential for "local" longline and trolling fisheries.

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cc: Skillman
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